



PATENT  
Docket No. 020675

*INU*  
*AF*  
*\$*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Mark D. Parisi

Serial No.: 09/803,058

Filed: March 8, 2001

) For: **METHOD AND APPARATUS**  
) **FOR HIGH DENSITY MESSAGE**  
) **CODING**  
)  
) **Examiner: Sanh Phu**  
)  
) **Group Art Unit: 2682**

TRANSMITTAL LETTER

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Enclosed for filing please find Appellant's Appeal Brief in Support of Appellant's Appeal to the Board of Patent Appeals and Interferences in triplicate. Please charge our Deposit Account No. 17 - 0026 of QUALCOMM Incorporated in the amount of \$340.00 for the filing of the Appeal Brief. In addition, please charge any additional fees whatsoever which may become properly due or payable, as set forth in 37 CFR 1.16 to 37 CFR 1.18 inclusive, or credit any

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on:  
November 2, 2004

(Date of Deposit)

*Thomas M. Thibault*  
(Name of the Person Making Deposit)

(Signature)

November 2, 2004

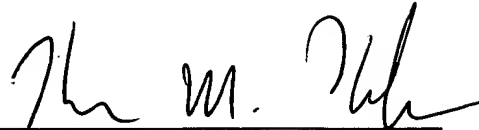
(Date of Signature)

overpayment, for the entire pendency of this application without specific additional authorization.

Respectfully submitted,

Dated: November 2, 2004

By: \_\_\_\_\_



Thomas M. Thibault  
Reg. No. 42,181

QUALCOMM Incorporated (PTO Customer No. 23696)  
Attn: Patent Department  
5775 Morehouse Drive  
San Diego, California 92121-1714  
Telephone: (858) 651-2356  
Facsimile: (858) 658-2502



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: )  
MARK PARISI ) For: METHOD AND APPARATUS  
Serial No: 09/803,058 ) FOR HIGH DENSITY MESSAGE  
 ) CODING  
 )  
 )  
 )  
Filed: March 8, 2001 ) Group Art Unit: 2682

APPELLANT'S BRIEF (37 CFR 1.192)

Mail Stop Appeal Brief- Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**ATTENTION: Board of Patent Appeals and Interferences**

This following appeal brief is hereby submitted following Appellant's Notice of Appeal, filed on September 2, 2004. This brief is transmitted in triplicate. (37 CFR 1.192(a))

11/09/2004 AAD0F01 00000020 170026 09803058  
01 FC:1402 340.00 DA

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Commissioner of Patents and Trademarks, Alexandria, VA, 22313-1450 on:

11/2/04

(Date of Deposit)

Thomas M. Thibault

(Name of Person Signing)

Thomas M. Thibault

(Signature)

11/2/04

(Date of Signature)

## **REAL PARTY IN INTEREST**

The real party in interest is Qualcomm Incorporated, located at 5775 Morehouse Drive, San Diego, California 92121.

## **RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences that will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

## **STATUS OF THE CLAIMS**

1. The total number of claims pending in the application is 7.
2. Claims 1, 3, 5, and 7 stand rejected.
3. Claims 2, 4, and 6 stand objected to.
4. Claims 1-7 are on appeal.

## **STATUS OF AMENDMENT**

There has no amendments filed in the present case after issuance of the Examiner's final action on June 3, 2004.

## **SUMMARY OF THE INVENTION**

The present invention is directed to a method and apparatus for transmitting data from a remote reporting unit via a wireless communication network. In one embodiment, the present invention is directed to a method, the method comprising operations of generating a status message, the status message having a value representing one of multiple alternative conditions detected by a remote unit (page 11, lines 16-19). A predetermined mapping scheme is then used to convert the value into a consolidated output (page 16, line 4 through page 17, line 33), then finally generating a feature code comprising the consolidated output (page 18, lines 1 through 24), and transmitting the feature code to a call processing facility.

## ISSUES

1. Whether claims 1, 3, 5, and 7 are unpatentable over McDonald, Jr. et al. (US 2002/0077750) under 35 U.S.C. 103(a) in view of Jones et al. (US 6,337,972).

## GROUPING OF CLAIMS

Appellants believe that the rejected claims stand or fall together.

## ARGUMENTS

### Rejections under 35 U.S.C. 103(a)

Claims 1, 3, 5, and 7 were rejected under 35 U.S.C. 103(a) as being unpatentable over McDonald, Jr. et al. (US 2002/0077750) in view of Jones et al. (6,337,972). It was alleged that McDonald teaches, among other things, applying a predetermined mapping scheme to convert a “value” into a consolidated output. It was further alleged that the combination of McDonald and Jones teaches all of the remaining features of claims 1, 3, 5, and 7, rendering these claims obvious.

Applicant does not agree that McDonald teaches applying a predetermined mapping scheme to convert a “value” into a consolidated output. It was alleged that McDonald teaches such a mapping scheme in paragraphs 0028-0030 and/or paragraph 0045 of McDonald.

Paragraphs 0028-0030 do not describe converting a value into a consolidated output. They describe a system located onboard a concrete truck for sensing various “delivery states” of the truck and transmitting this information to a remote location. Paragraph 0029 describes the various delivery states as “At Terminal”, “Loading”, “Leaving Terminal”, etc. Paragraph 0030 describes the transmission of delivery state messages, including a location of the concrete truck based on a GPS receiver. There is no description whatsoever of a mapping scheme to convert these alleged “status messages” into a consolidated output.

Paragraph 45, likewise, does not describe a mapping scheme for converting a value into a consolidated output. It simply describes transmission of the various delivery status messages (such as “At Job Site”, “Begin Pour”, and “End Pour”) once

certain conditions are detected by a “vehicle condition sensor”. Again, there is no description of a mapping scheme to convert these alleged “status messages” into a consolidated output.

In the Final Office Action, paragraph 4 (*Response to the Argument*), it is alleged that McDonald et al. teaches applying a “predetermined mapping scheme to convert a value into a consolidated output in Fig. 3, page 3, section 0030, lines 42-45. Allegedly, this section describes the transmission of a signal from a vehicle to central server 30, combining automatic status information with GPS data. Applicant does not agree that the combination of status information and GPS data constitutes a predetermined mapping scheme to convert a value into a consolidated output.

McDonald lacks a teaching of a predetermined mapping scheme. As described in Applicant’s specification (page 5, lines 6-8), a mapping scheme is described as a way to “convey more information in the same number of messages or use fewer messages to convey the same information, thus conserving valuable bandwidth.” The Final Office Action cites page 3, section 0030, lines 42-45 as teaching this feature:

“The intelligent controller 16 generates automatic status information of a delivery cycle, wherein the automatic status information includes both vehicle location information derived from the signals received by the GPS receiver 14 and vehicle delivery status information derived from the signals received from the vehicle condition sensor 22.”

The above passage simply teaches that “automatic status information” is generated, comprising GPS signals and vehicle delivery status information. There is no teaching whatsoever of using a “mapping scheme” to convert a value into a consolidated output. The two signals discussed in McDonald are simply transmitted together without manipulating them via a mapping scheme.

## **SUMMARY**

Neither McDonald nor Jones describe a mapping scheme to convert information into a consolidated output. Therefore, Applicant believes that the rejection to claim 1, 5, and 7 should be withdrawn, as each of these independent claims comprises a mapping

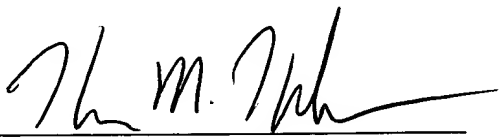
scheme for converting a "value" into a consolidated output. Furthermore, claim 3 should be allowed as being dependent on claim 1, which Applicant believes to be allowable.

### CONCLUSION

For the foregoing reasons, Appellants respectfully request that all presently outstanding rejections be reversed, and that all claims under appeal be allowed.

Respectfully submitted,

Dated: 11/2/04

By:   
Thomas M. Thibault  
Attorney for Appellant  
Registration No. 42,181

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, California 92121-2779  
Telephone: (858) 651-2356  
Facsimile: (858) 658-1576

## APPENDIX OF CLAIMS

1. A method for transmitting data from a remote reporting unit via a wireless communication network, comprising operations of:

generating a status message, said status message having a value representing one of multiple alternative conditions detected by a remote unit;

applying a predetermined mapping scheme to convert said value into a consolidated output;

generating a feature code comprising the consolidated output; and

transmitting the feature code to a call processing facility.

2. The method of claim 1, where the operation of applying a predetermined mapping scheme comprises:

multiplying each status message by a different predetermined coefficient to create a corresponding multiplicative product; and

adding the multiplicative products;

wherein the coefficients are selected to enable reconstruction of each status message by repeated division of the consolidated output by the coefficients.

3. The method of claim 1, wherein said status message comprises a latitude, a longitude, an event code representing an occurrence of one or more predetermined events, and a state code representing one or more states.

4. The method of claim 3, where the operation of applying a predetermined mapping scheme comprises:

multiplying the latitude status message by a first coefficient;

multiplying the longitude status message by a second coefficient;

multiplying the event code by a third coefficient; and

adding results of the foregoing multiplication operations to the state to create a corresponding multiplicative product.



5. A signal-bearing medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform operations for transmitting data from a remote unit via a telephone network, said operations comprising:

- a remote reporting unit for generating a status message, said status message having a value representing one of multiple alternative conditions detected by the remote reporting unit;

- the remote unit optimizing the status message comprising operations of:

- applying a predetermined mapping scheme to convert said value into a consolidated output; and

- the remote unit generating a feature code comprising the consolidated output, and transmitting the feature code to a call processing facility.

6. The medium of claim 5, wherein the operation of the remote unit applying a predetermined mapping scheme comprises:

- multiplying each status message by a different predetermined coefficient to create a corresponding multiplicative product; and

- adding the multiplicative products;

- where the coefficients are selected to enable reconstruction of the status messages by repeated division of the consolidated output by the coefficients.

7. A remote reporting unit, comprising:

- a first sensor for sensing an first event and generating a first status;

- a second sensor for sensing a second event and generating a second status;

- a wireless transmitter;

- data processing circuitry, coupled to said first sensor, second sensor, and said transmitter, configured to transmit reports of the events and status by performing operations comprising:

- generating a status message, said status message having a value representing one of multiple alternative conditions detected by the first and second sensors;

optimizing the status message by applying a predetermined mapping scheme to the status message to convert the value into a consolidated output;  
generating a feature code comprising the consolidated output; and  
transmitting the feature code to a call processing facility using said wireless transmitter.